Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. – 41. (Canceled)

42. (Previously presented) A method for identifying a compound that modulates fungal tRNA splicing endonuclease activity, the method comprising:

(a) contacting a compound or a member of a library of compounds with a fungal tRNA splicing endonuclease and a substrate for tRNA splicing endonuclease comprising a nucleic acid, wherein the nucleic acid comprises a tRNA intron within a bulge-helix-bulge structure or a mature domain of a precursor tRNA; and

(b) detecting the amount of substrate cleaved, wherein a compound that modulates fungal tRNA splicing endonuclease activity is identified if the amount of substrate cleaved in the presence of a compound is altered relative to the amount of substrate cleaved in the absence of the compound or in the presence of a negative control.

43. (Previously presented) The method of claim 42, wherein a compound that reduces fungal tRNA splicing endonuclease activity is identified if the amount of substrate cleaved is decreased in the presence of the compound relative to the amount of substrate cleaved in the absence of the compound or the presence of a negative control.

44. (Withdrawn) The method of claim 42, wherein a compound that increases fungal tRNA splicing endonuclease activity is identified if the amount of substrate cleaved is increased in the presence of the compound relative to the amount of substrate cleaved in the absence of the compound or the presence of a negative control.

45. (Previously presented) The method of claim 42, wherein the nucleic acid comprises a reporter gene and wherein the tRNA intron within a bulge-helix-bulge structure or a mature domain of a precursor tRNA is contained within the reporter gene.

46. (Previously presented) The method of claim 45, wherein the method comprises:

(a) contacting a compound or a member of a library of compounds with a fungal cell containing the fungal tRNA splicing endonuclease and the substrate; and

(b) detecting the amount of substrate cleaved by detecting the expression of the reporter gene, wherein a compound that modulates fungal tRNA splicing endonuclease activity is identified if the expression of the reporter gene in the presence of a compound is altered relative to the expression of the reporter gene in the absence of the compound or in the presence of a negative control.

47. (Withdrawn) The method of claim 45, wherein the method comprises:

(a) contacting a compound or a member of a library of compounds with a fungal cell-free extract containing the fungal tRNA splicing endonuclease and the substrate; and

(b) detecting the amount of substrate cleaved by detecting the expression of the reporter gene, wherein a compound that modulates fungal tRNA splicing endonuclease activity is identified if the expression of the reporter gene in the presence of a compound is altered relative to the expression of the reporter gene in the absence of the compound or in the presence of a negative control.

48. (Previously presented) The method of claim 46 or 47, wherein a compound that reduces fungal tRNA splicing endonuclease activity is identified if the expression of the protein encoded by the reporter gene is decreased in the presence of the compound relative to the expression of the protein in the absence of the compound or the presence of a negative control.

49. (Withdrawn) The method of claim 46 or 47, wherein a compound that increases fungal tRNA splicing endonuclease activity is identified if the expression of the protein encoded by the reporter gene is increased in the presence of the compound relative to the expression of the protein in the absence of the compound or the presence of a negative control.

50. (Withdrawn) The method of claim 42, wherein the nucleic acid is labeled at a 5' end with a fluorophore and at a 3' end with a quencher, or the nucleic acid is labeled at the 5' end with a quencher and at the 3' end with a fluorophore.

51. (Withdrawn) The method of claim 50, wherein the method comprises:

(a) contacting a compound or a member of a library of compounds with a fungal cell-free extract containing a fungal tRNA splicing endonuclease and the substrate; and

(b) detecting the amount of substrate cleaved by measuring the fluorescence of the substrate, wherein a compound that modulates tRNA splicing endonuclease activity is identified if the fluorescence of the substrate in the presence of the compound is altered relative to the fluorescence of the substrate in the absence of the compound or in the presence of a negative control.

52. (Withdrawn) The method of claim 50, wherein the method comprises:

(a) contacting a compound or a member of a library of compounds with a purified fungal tRNA splicing endonuclease and the substrate; and

(b) detecting the amount of substrate cleaved by measuring the fluorescence of the substrate, wherein a compound that modulates tRNA splicing endonuclease activity is identified if the fluorescence of the substrate in the presence of the compound is altered relative to the fluorescence of the substrate in the absence of the compound or in the presence of a negative control.

53. (Withdrawn) The method of claim 50, wherein the method comprises:

(a) contacting a compound or a member of a library of compounds with a fungal cell containing the fungal tRNA splicing endonuclease substrate and the substrate; and

(b) detecting the amount of substrate cleaved by measuring the fluorescence of the substrate, wherein a compound that modulates tRNA splicing endonuclease activity is identified if the fluorescence of the substrate in the presence of the compound is altered relative to the fluorescence of the substrate in the absence of the compound or in the presence of a negative control.

54. (Withdrawn) The method of claim 51, 52 or 53, wherein a compound that reduces fungal tRNA endonuclease activity is identified if the fluorescent signal produced by the substrate is less detectable in the presence of the compound than the fluorescent signal produced in the absence of the compound or in the presence of a negative control.

55. (Withdrawn) The method of claim 51, 52 or 53, wherein a compound that increases fungal tRNA endonuclease activity is identified if the fluorescent signal produced by the substrate is more detectable in the presence of the compound than the fluorescent signal produced in the absence of the compound or in the presence of a negative control.

56. (Withdrawn) The method of claim 42, wherein the nucleic acid is labeled at a 5' end with a fluorescent donor moiety and labeled at a 3' end with a fluorescent acceptor moiety, or the nucleic acid is labeled at the 5' end with a fluorescent acceptor moiety and labeled at the 3' end with a fluorescent donor moiety.

57. (Withdrawn) The method of claim 56, wherein the method comprises:

(a) contacting a compound or a member of a library of compounds with a fungal cell-free extract containing the fungal tRNA splicing endonuclease and the substrate; and

(b) detecting the amount of substrate cleaved by measuring the fluorescence of the substrate, wherein a compound that modulates tRNA splicing endonuclease activity is identified if the fluorescence of the substrate in the presence of the compound is altered relative to the fluorescence of the substrate in the absence of the compound or in the presence of a negative control.

58. (Withdrawn) The method of claim 56, wherein the method comprises:

(a) contacting a compound or a member of a library of compounds with a purified fungal tRNA splicing endonuclease and the substrate; and

(b) detecting the amount of substrate cleaved by measuring the fluorescence of the substrate, wherein a compound that modulates tRNA splicing activity is identified if the fluorescence of the substrate in the presence of the compound is altered relative to the fluorescence of the substrate in the absence of the compound or in the presence of a negative control.

59. (Withdrawn) The method of claim 56, wherein the method comprises:

(a) contacting a compound or a member of a library of compounds with a fungal cell containing the fungal tRNA splicing endonuclease and the substrate; and

(b) detecting the amount of substrate cleaved by measuring the fluorescence of the substrate, wherein a compound that modulates tRNA endonuclease splicing activity is identified if the fluorescence of the substrate in the presence of the

compound is altered relative to the fluorescence of the substrate in the absence of the compound or in the presence of a negative control.

60. (Withdrawn) The method of claim 57, 58 or 59, wherein a compound that reduces fungal tRNA splicing endonuclease activity is identified if the fluorescence emission of the fluorescent acceptor moiety at the wavelength of the fluorescent donor moiety in the presence of the compound is increased relative to the fluorescence emission in the absence of the compound or the presence of a negative control.

61. (Withdrawn) The method of claim 57, 58 or 59, wherein a compound that increases fungal tRNA endonuclease activity is identified if the fluorescence emission of the fluorescent acceptor moiety at the wavelength of the fluorescent donor moiety in the presence of the compound is decreased relative to the fluorescence emission in the absence of the compound or the presence of a negative control.

62. (Previously presented) The method of claim 45, wherein the reporter gene encodes at least one member of the group consisting of firefly luciferase, renilla luciferase, click beetle luciferase, green fluorescent protein, yellow fluorescent protein, red fluorescent protein, cyan fluorescent protein, blue fluorescent protein, beta-galactosidase, beta-glucoronidase, beta-lactamase, chloramphenicol acetyltransferase, and alkaline phosphatase.

63. (Previously presented) The method of claim 46, 53 or 59, wherein the fungal cell is a yeast cell.

64. (Previously presented) The method of claim 63, wherein the yeast cell is selected from the group consisting of a *Saccharomyces cerevisiae* cell, a *Schizosaccharomyces pombe* cell, a *Pichia pastoris* cell, and a *Hansenula polymorpha* cell.

65. (Withdrawn) The method of claim 47, 51 or 57, wherein the fungal cell-free extract is a yeast extract.

66. (Withdrawn) The method of claim 65, wherein the yeast extract is selected from the group consisting of a *Saccharomyces cerevisiae* extract, a *Schizosaccharomyces pombe* extract, a *Pichia pastoris* extract, and a *Hansenula polymorpha* extract.

67-82 (Canceled)

83. (New) The method of claim 42 or 43, wherein the method further comprises assessing the specificity of the compound for modulating fungal tRNA splicing endonuclease relative to animalia tRNA splicing endonuclease, wherein such assessment comprises contacting the compound with an animalia tRNA splicing endonuclease and the substrate, and detecting the amount of substrate cleaved by the animalia tRNA splicing endonuclease, wherein the compound is specific for fungal tRNA splicing endonuclease if the amount of substrate cleaved by the animalia tRNA splicing endonuclease in the presence of the compound is not altered relative to the amount of substrate cleaved by the animalia tRNA splicing endonuclease in the absence of the compound or the presence of a negative control.

84. (New) The method of claim 48, wherein the method further comprises assessing the specificity of the compound for modulating fungal tRNA splicing endonuclease relative to animalia tRNA splicing endonuclease, wherein such assessment comprises contacting the compound with an animalia tRNA splicing endonuclease and the substrate, and detecting the amount of substrate cleaved by the animalia tRNA splicing endonuclease, wherein the compound is specific for fungal tRNA splicing endonuclease if the amount of substrate cleaved by the animalia tRNA splicing endonuclease in the presence of the compound is not altered relative to the amount of substrate cleaved by the animalia tRNA splicing endonuclease in the absence of the compound or the presence of a negative control.

85. (New) The method of claim 54, wherein the method further comprises assessing the specificity of the compound for modulating fungal tRNA splicing endonuclease relative to animalia tRNA splicing endonuclease, wherein such assessment comprises contacting the compound with an animalia tRNA splicing endonuclease and the substrate, and detecting the amount of substrate cleaved by the animalia tRNA splicing endonuclease, wherein the compound is specific for fungal tRNA splicing endonuclease if the amount of substrate cleaved by the animalia tRNA splicing endonuclease in the presence of the compound is not altered relative to the amount of substrate cleaved by the animalia tRNA splicing endonuclease in the absence of the compound or the presence of a negative control.

86. (New) The method of claim 60, wherein the method further comprises assessing the specificity of the compound for modulating fungal tRNA splicing endonuclease relative to animalia tRNA splicing endonuclease, wherein such assessment comprises contacting the compound with an animalia tRNA splicing endonuclease and the substrate, and detecting the amount of substrate cleaved by the animalia tRNA splicing endonuclease, wherein the compound is specific for fungal tRNA splicing endonuclease if the amount of

substrate cleaved by the animalia tRNA splicing endonuclease in the presence of the compound is not altered relative to the amount of substrate cleaved by the animalia tRNA splicing endonuclease in the absence of the compound or the presence of a negative control.

87. (New) The method of claim 42 or 43, wherein the nucleic acid comprises a tRNA intron within a mature domain of a precursor tRNA.

88. (New) The method of claim 46, wherein the nucleic acid comprises a tRNA intron within a mature domain of a precursor tRNA.

89. (New) The method of claim 48, wherein the nucleic acid comprises a tRNA intron within a mature domain of a precursor tRNA.